ABSTRAK

Tujuan penelitian adalah untuk mengkaji penambahan *acidifier* dalam pakan yang mengandung probiotik terhadap kinerja protein dan fungsi ginjal pada ayam Sentul. Materi yang digunakan adalah ayam sentul betina umur 6 bulan sebanyak 60 ekor yang dipelihara selama 2 bulan pada 20 unit kandang batrai, dan menggunakan Rancangan Acak Lengkap (RAL) dengan 4 perlakuan 5 ulangan oleh sebab itu terdapat 20 unit percobaan dengan 3 ekor/ulangan. Variabel yang diukur meliputi kinerja protein (konsumsi protein, persentase protein hati, persentase protein daging dan massa protein daging) dan fungsi ginjal (asam urat, kreatinin dan ureum). Perlakuan: R0: pakan basal (kontrol); R1: pakan basal (kontrol) + probiotik dengan *acidifier* asam laktat 0,5%; R2: pakan basal (kontrol) + probiotik dengan *acidifier* asam laktat 1,0%; R3: pakan basal (kontrol) + probiotik dengan *acidifier* asam laktat 1,5%. Analisis data dengan analisis variansi (ANAVA) menggunakan IBM SPSS. Hasil analisis variansi menunjukkan bahwa asam laktat sebagai *acidifier* pada pakan yang mengandung probiotik berpengaruh sangat nyata ($P<0,01$) terhadap konsumsi protein, persentase protein hati dan persentasi protein daging dan berpengaruh nyata ($P<0,05$) terhadap massa protein daging. Hasil analisis variansi menunjukkan bahwa asam laktat sebagai *acidifier* pada pakan yang mengandung probiotik berpengaruh tidak nyata ($P>0,05$) terhadap fungsi ginjal ayam Sentul. Berdasarkan hasil penelitian dapat disimpulkan bahwa fungsi ginjal yang meliputi kadar asam urat, kreatinin dan ureum pada darah ayam Sentul masih dalam kisaran normal. Hasil kinerja protein menunjukkan bahwa *acidifier* 0,5% dalam pakan yang mengandung probiotik dapat digunakan sebagai pakan tambahan untuk ayam Sentul karena efisien dalam mengoptimalkan kinerja protein dan tidak mengganggu fungsi ginjal.

Kata kunci: ayam Sentul, ginjal, kinerja protein, *acidifier*

ABSTRACT

The aim of this research was to study the addition of an acidifier in feed containing probiotics on protein performance and kidney function in Sentul chickens. The material used was 60 female Sentul chickens aged 6 months, kept for 2 months in 20 units of battery cages, and used a completely randomized design (CRD) with 4 treatments of 5 replications, therefore there were 20 experimental units with 3 head / replications. The variables measured included protein performance (protein consumption, liver protein percentage, meat protein percentage and meat protein mass) and kidney function (uric acid, creatinine and urea). Treatment: R0: basal feed; R1: basal feed + probiotic with lactic acid acidifier 0.5%; R2: basal feed + probiotic with lactic acid acidifier 1.0%; R3: basal feed + probiotic with lactic acid acidifier 1.5%. Data analysis with analysis of variance (ANOVA) using IBM SPSS. The results of the analysis of variance showed that lactic acid as an acidifier in feed containing probiotics had a very significant effect ($P < 0.05$) on protein consumption, liver protein percentage and meat protein percentage, and had a significant effect ($P > 0.05$) on meat protein mass. The results of the analysis of variance showed that lactic acid as an acidifier in feed containing probiotics had no significant effect ($P > 0.05$) on the kidney function of Sentul chickens. Based on the results of the study, it can be concluded that the kidney function which includes levels of uric acid, creatinine and urea in Sentul chicken blood is still in the normal range. The results of protein performance indicated that 0.5% acidifier in feed containing probiotics could be used as additional feed for Sentul chickens because it was efficient in optimizing protein performance and did not interfere with kidney function.

Keywords: Sentul chicken, kidney, protein performance, acidifer